



US Army Information Systems Engineering Command

TECHNICAL GUIDE FOR INSTALLATION INFORMATION INFRASTRUCTURE ARCHITECTURE

ISEC: Excellence in Engineering



I3A Guide Changes

- Purpose – Each CSE/SME is required to conduct periodic maintenance of the technical guide
- General - Reference other technical guides
 - SIPRNET
 - Voice Switching
 - Network Architecture
 - Network and Systems Management
 - Wireless Local Area Network
 - Lightning Protection, Power Quality Analysis, Grounding, Bonding, and Shielding (LPAGBS)
 - I3A and I3MP Grounding and Bonding
- Simpler to maintain and publish



I3A Guide Changes

- Building Telecommunications Cabling System:
 - I3A Guide based upon latest ANSI/TIA/EIA documents
 - Consolidated list of outlets types and options
 - Additional information on family housing and BOQs
 - Guidance on emerging cabling standards (10 Gbps, Cat 6 Augmented, Cat 7)
 - Additional information on systems furniture and consolidation points
 - New information on cabling and infrastructure planning for 802.11 wireless



I3A Guide Changes

- Building Telecommunications Cabling System:
 - Notes to designer to evaluate impact of VoIP and power over Ethernet (PoE) on facilities power, battery backup, heat load and space requirements in telecommunications rooms
 - New information on range facilities
 - New information on Building Automation Systems (BAS)
 - Clarification of grounding issues
 - Industry reviewed grounding guidance



I3A Guide Changes

- Outside Plant:
 - Clarification of grounding issues
 - Additional information on road closings for road cuts
 - Additional information on detection of buried cable
 - Additional information on locking lids
 - Additional information on duct assignment and cable racking
 - Clarification of spacer use
 - Clarification of duct installation
 - Additional information on fabric mesh innerduct



I3A Guide Changes

- Outside Plant:
 - Updated references
 - New information on non-zero dispersion fiber specifications
 - Inclusion of various industry comments
 - New information on free-space optics (FSO)
 - New information on range facilities
 - New information on pier and bridge cabling



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Backup Slides Standards and Bio



Commercial Building Cabling Standards

- ANSI/TIA/EIA-568-B Series - Cabling
- ANSI/TIA/EIA-569-B - Pathways
- ANSI/TIA/EIA-606-A - Administration
- ANSI/TIA/EIA-862 - Building Automation
- ANSI/TIA/EIA-526-7 - SM Fiber Testing
- ANSI/TIA/EIA-526-14-A - MM Fiber Testing
- ANSI/TIA/EIA-942 - Data Centers



Commercial Outside Plant Standards



- USDA Rural Utilities Service (RUS) Standards
- ANSI/TIA/EIA-758
- Telcordia Documents
- Lucent Documents
- IEEE
- IEC/ISO
- EN



Fred Skroban



- SME for Implementation Engineering
- US Army Information Systems Engineering Command – Fort Detrick Engineering Directorate
- Background:
 - Employed At ISEC-CONUS/FDEO/FDED since February 1990
 - Background in Data QA and Test, BRAC Cell, DPI Relocations, and I3A Implementation Program
 - UFC/UFGS Telecommunications Working Group
 - USACE Model RFP Working Group
 - I3MP Standards Committee
 - OSPPDR Committee
 - USAISEC Confined Space and Survey Safety author and trainer